

## SEQUENCE LISTING

<110> BLUMENFELD, Marta  
BOUGUELERET, Lydie  
CHUMAKOV, Ilya  
COHEN, Daniel  
ESSIOUX, Laurent

<120> Genes, proteins and biallelic markers related to central...

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 Gln Arg Gln Gln Gln  
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 Ala Leu Ala Ser Met Gly Glu Ser Ser Pro Ala Ala Gln Ala His  
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 Gly Gly Gly Ser Lys Gly Asn Arg Gly Lys Asn Asn Arg Ser Arg  
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Phe	Ser	Gly	Leu	Ser	Ser	Pro	Ser	Thr	Leu	Asn	Cys	Ser	Leu	Asp	Val	
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Val	Leu	Thr	Glu	Gly	Gly	Glu	Met	Thr	Thr	Cys	Arg	Gln	Cys	Ile	Glu	
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Glu	Ser	Val	Leu	His	Lys	Tyr	Leu	Gln	Ser	Asp	Glu	Tyr	Ser	Val	Lys	
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Ser	Cys	Pro	Glu	Asp	Cys	Lys	Ile	Val	Tyr	Lys	Ala	Trp	Leu	Cys	Ser	
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Gln	Tyr	Phe	Glu	Val	Thr	Gln	Phe	Asn	Cys	Arg	Lys	Thr	Ile	Pro	Cys	
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Lys	Gln	Tyr	Cys	Leu	Glu	Val	Gln	Thr	Arg	Cys	Pro	Phe	Ile	Leu	Pro	
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Ile	Arg	Ser	Glu	Glu	Gln	Thr	Ala	Pro	Arg	Pro	Lys	Gly	Thr	Val	Asp	
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Arg	Arg	Asp	Ser	Cys	Pro	Arg	Thr	Ser	Leu	Thr	Val	Ser	Ser	Ala	Thr	
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Arg	Leu	Cys	Pro	Gly	Arg	Leu	Lys	Leu	Cys	Val	Leu	Val	Leu	Ile	Leu	
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Leu	His	Thr	Val	Leu	Thr	Ala	Ser	Ala	Ala	Gln	Asn	Ser	Thr	Gly	Leu	
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ggc	ctg	ggt	ggc	ctc	ccc	acg	ctc	gag	aac	tcc	acc	cg	gag	gac		1450
Gly	Leu	Gly	Gly	Leu	Pro	Thr	Leu	Glu	Asp	Asn	Ser	Thr	Arg	Glu	Asp	
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35 40 45  
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180 185 190  
Val Glu Ser Ala Asp Ala Val Cys Ala Arg Asn Trp Ser Arg Gly Ala  
195 200 205  
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225 230 235 240  
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Leu Asp Val Val Leu Thr Glu Gly Gly Glu Met Thr Thr Cys Arg Gln  
260 265 270  
Cys Ile Glu Ala Tyr Gln Asp Tyr Asp His His Ala Gln Glu Lys Tyr  
275 280 285  
Glu Glu Phe Glu Ser Val Leu His Lys Tyr Leu Gln Ser Asp Glu Tyr  
290 295 300  
Ser Val Lys Ser Cys Pro Glu Asp Cys Lys Ile Val Tyr Lys Ala Trp  
305 310 315 320  
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385 390 395 400

Thr Val Asp Arg Arg Asp Ser Cys Pro Arg Thr Ser Leu Thr Val Ser  
405 410 415  
Ser Ala Thr Arg Leu Cys Pro Gly Arg Leu Lys Leu Cys Val Leu Val  
420 425 430  
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DETERMINANTES  
EN EL DESARROLLO  
DEL SISTEMA INMUNO

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<223> 99-5919.pu

<220>  
<221> primer\_bind  
<222> 435..455  
<223> 99-5919.rp complement

<400> 36

ctacagcaat	gcagattca	attctgccat	tgaattccca	gacatattcg	tcatccccat	60
tttcatcccc	caccaccctg	ccatttctt	cgtgttaact	tgtttcctg	actcacagaa	120
atcacctttt	cctgtataca	tttttaggat	gtcagacttt	attctaata	tttctcctag	180
ttgccccccca	aaattgtatt	ctacrgtgt	attttaaagc	tgaattttca	agatgatatt	240
tcataatctat	atttcacaa	gctttcttc	tatgaatgtt	attgtcagct	gtcagggtgt	300
gagatggtag	ttgataactac	attcttcca	agctgttgcc	tgaatcggtt	taagacaaag	360
tcattactag	gctgtaaaact	gttgctctgc	aaaattgagc	agcacgtatt	taaccactca	420
tacttcttag	ctctccaaca	cttgagtc	ataga			455

<210> 37  
<211> 450  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 157  
<223> 99-5862-167 : polymorphic base C or T

<220>  
<221> misc\_binding  
<222> 134..180  
<223> 99-5862-167.probe

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<220>
<221> primer_bind
<222> 138..156
<223> 99-5862-167.mis

<220>
<221> primer_bind
<222> 158..176
<223> 99-5862-167.mis complement

<220>
<221> primer_bind
<222> 1..20
<223> 99-5862.pu

<220>
<221> primer_bind
<222> 430..450
<223> 99-5862.rp complement

<400> 37
aatcaaggta gagatgtatg agaaatagcc gttaaagaa acgcattac tttcagacta      60
tcttttattt gaaatacacg tggggaaacc agaaggtgaa accccttagg agatggatat 120
aggatactaa aatctgagtt agaaaaattt gagcatyagc accttacgtg tcatgctaag 180
atagtgaatg agactgcaca ggaattgcat gcagttAAC ggaaaaagaa gtcgaaagat 240
aaattcctag aacactaaca ccgagttatg ggaggagaaa tatcctgcac aggtcactct 300
gggagacatg tcaattgttt agccaatatc catttaactc atcttcttc ctaatgaaaa 360
ccgaatttgg agaagcaggt agtgcccctg gctagaaaata tgaaccttcc cagttctct 420
catgcactga actgacaaag ttcaggtctg                                450

<210> 38
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 292
<223> 99-16032-292 : polymorphic base A or C

<220>
<221> misc_binding
<222> 269..315
<223> 99-16032-292.probe

<220>
<221> primer_bind
<222> 273..291
<223> 99-16032-292.mis

<220>
<221> primer_bind
<222> 293..311
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<223> 99-16032-292.mis complement

<220>
<221> primer_bind
<222> 1..19
<223> 99-16032.pu

<220>
<221> primer_bind
<222> 384..403
<223> 99-16032.rp complement

<400> 38
gttgttaccc cacttcttcc ccccaagctcc cccttcctca cacagttcat gccacatgcc      60
actctcctgg actactggaa atgcgtcagt ccactctggg ctcatcccat catccccat      120
gctgcaacct gagagagagt tgcaagttgc aaatctgatc ttgtcaccac cactctccac      180
actaaatccc tctaattgcct cccctttct ttttgataa attccttctg cttgcatacg      240
cacgtggttg gttctatag catcaattca cactgtggtc acctgccttc tmctcactca      300
ggaacttctc tccatgtaaag aagttcttct tcccatctc cagggcttcc caactgacag      360
ttgtatctcc cccataacaa gcccaggtgg tcatctcatc cca      403

<210> 39
<211> 476
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 118
<223> 99-16038-118 : polymorphic base A or G

<220>
<221> misc_binding
<222> 95..141
<223> 99-16038-118.probe

<220>
<221> primer_bind
<222> 99..117
<223> 99-16038-118.mis

<220>
<221> primer_bind
<222> 119..137
<223> 99-16038-118.mis complement

<220>
<221> primer_bind
<222> 1..19
<223> 99-16038.pu

<220>
<221> primer_bind
<222> 456..476
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<223> 99-16038.rp complement

<400> 39

gttgcttatt	ctttctctct	tctgcaggg	ataaaggaat	ctgaacacga	ctgatatttt	60
ctttaatttt	tagatccaga	tatacattgg	gtaaaatcta	cttcatacggt	tttcaaarg	120
gcattcttct	gagcaaatct	aaaaactctc	taaactctat	tggtatgtt	ctctttatct	180
ttatatgaat	ttaaattctt	ctagaagtt	gataaaactg	tggtaaagct	acataatact	240
tttgacat	tttcaagcgt	agacaaactt	caattaattt	gtaagataca	ggaagaaaaat	300
ttttccagtt	aaaatgtacc	tcttggtt	tggagtgtt	gcaaccatc	acacttacag	360
ttcaaacagt	gcaaccttgt	aaaacatata	taacttatga	agagatcgat	atctttttt	420
ataaaagcaaa	caagtaaattt	tttccctcaa	tccatgattt	attttgtga	agtggg	476

<210> 40

<211> 498

<212> DNA

<213> Homo sapiens

<220>

<221> allele

<222> 133

<223> 99-5897-143 : polymorphic base A or C

<220>

<221> misc\_binding

<222> 110..156

<223> 99-5897-143.probe

<220>

<221> primer\_bind

<222> 114..132

<223> 99-5897-143.mis

<220>

<221> primer\_bind

<222> 134..152

<223> 99-5897-143.mis complement

<220>

<221> primer\_bind

<222> 1..18

<223> 99-5897.pu

<220>

<221> primer\_bind

<222> 475..492

<223> 99-5897.rp complement

<400> 40

aaaagtgttt	gccagtcctg	tttcttacag	agcacagaac	tcatgtctc	ttataaagat	60
acaggataaa	tcacatcatt	tcctgctcca	tcatcagaat	attattat	gatttagatc	120
acttttttaa	aamagaacat	ggacttagta	cagaacaaca	gaaaagcct	gggaaaggag	180
agagtgcac	catgaggagt	caatggggag	cagaagccag	tccatttgc	tgatttggtt	240
cgtgtgcaaa	ataattgcta	ataattgca	tatatgtgag	actccgggtt	ttttcaaaac	300
cagctggcaa	aattgtgtt	tttctctaccc	tctgctggct	ttcacgggtt	ctctgttctc	360

tctcctttc ctccattctc ctcttacctt aattcctgac cactgtaatc caataatcta 420  
aggttttagg atttggatga ctaaggttac ccatggaatt gtttggaaat gtagacctgt 480  
aatggagagg ggagaaaa 498

<210> 41  
<211> 517  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 360  
<223> 99-13601-360 : polymorphic base A or G

<220>  
<221> misc\_binding  
<222> 337..383  
<223> 99-13601-360.probe

<220>  
<221> primer\_bind  
<222> 341..359  
<223> 99-13601-360.mis

<220>  
<221> primer\_bind  
<222> 361..379  
<223> 99-13601-360.mis complement

<220>  
<221> primer\_bind  
<222> 1..19  
<223> 99-13601.pu

<220>  
<221> primer\_bind  
<222> 500..517  
<223> 99-13601.rp complement

<400> 41  
gttttacttg acagttacca agaattgttt cgcatatggaaaattatat ctttgatggt 60  
tccctcattt atgggcctg gatacccaat gcaacacacc tacatcaaac tgcatttgta 120  
actgttggat tcataatgtat tctacctaag atgcaagcat acggcatcat tggccctgt 180  
tgtatggata tgcttgagaa gtcacatgct gaaatatacata tattttaaat ttgacagttat 240  
ctcctacaat attttcttta tattatagta aggtattaca ttacagttta aaacttatga 300  
ctataaggcag gtgatattat ctatgaattt catgtgaaat tagcaaaggg acagtctcar 360  
atgtttgctg tataaagtgt atttgaagcc tgataagggtt gagaaacact cagctacagt 420  
aagtaaaaac agctctcttta gtgggtgcct tggtgagaag atcttgaaaaa caagggtgaa 480  
aatacaaaaag aaactgtgtg gagtctacaa agatatt 517

<210> 42  
<211> 533  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 97  
<223> 99-13925-97 : polymorphic base A or G

<220>  
<221> misc\_binding  
<222> 74..120  
<223> 99-13925-97.probe

<220>  
<221> primer\_bind  
<222> 78..96  
<223> 99-13925-97.mis

<220>  
<221> primer\_bind  
<222> 98..116  
<223> 99-13925-97.mis complement

<220>  
<221> primer\_bind  
<222> 1..20  
<223> 99-13925.pu

<220>  
<221> primer\_bind  
<222> 513..533  
<223> 99-13925.rp complement

<400> 42 60  
catggaaatg aaagcatatac ttcattataa gacttctaca caaattatca catctttact  
tacagcagct gaaacctgga aacaactcta atgcccrtca acagaggaat ggatggataa 120  
agaaaactgtg atgcagtggaa atacgactca acgaagatga gactaaaaat aattataactg 180  
agtaaaagaa tccaaacaaa atagagcaaa cactgtgcca tcctgtttat accttactcc 240  
agtaaatgca aactaataca caatgaaaaa aattacttat ttgagaactg gggagaggaa 300  
ggagagggaa aggggtagat aaagaaaaga ggagagatta aaaggagcat aagaaaacct 360  
cagagaataa tagtttgtg gttaaacatta ccgtggtaat gtttttaggg tatattcaca 420  
tgtaaaaact tatccaatta tacattttaa atatgtacag ttttagtgtt cagttatgcc 480  
tctgtaaagt tgatttaaa aaaagtccata ttccaagtym acaatttcat ttg 533

<210> 43  
<211> 480  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 201  
<223> 99-13929-201 : polymorphic base A or C

<220>  
<221> misc\_binding

<222> 178..224  
 <223> 99-13929-201.probe

<220>  
 <221> primer\_bind  
 <222> 182..200  
 <223> 99-13929-201.mis

<220>  
 <221> primer\_bind  
 <222> 202..220  
 <223> 99-13929-201.mis complement

<220>  
 <221> primer\_bind  
 <222> 1..19  
 <223> 99-13929.pu

<220>  
 <221> primer\_bind  
 <222> 460..480  
 <223> 99-13929.rp complement

<400> 43

gggagaatac taataatgga agcattactt ttatTTTtc tataaattcc tctggaaata	60
tgtatTTctt atgtccaaag gttattaaca aaaagagaaa ataatttctg atttataattt	120
cactttccctt caaaaaataa taactcagtg tctagtaagg taaagcaaaa aaagttaaaa	180
gaacccataaa gtttatttta maatacctac tcagaagcaa aactgacttt ctatTTaaaa	240
ttaaaaaaaa aagtTTTctt attattgttt tgTTTcTTtgg ttttaggtt atgggattgt	300
atttgcaact ctctgtcag taagtataaa aatgcattt ctatgcaccc acctggcctg	360
tgtgactggg agaatctctc ttttattaa atgtgcttca agttttaaca actgactttt	420
gttagtgata tgatttatct acccgtgact gtcaaacaac acagatgatt tgcatatctc	480

<210> 44  
 <211> 477  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> allele  
 <222> 108  
 <223> 99-14021-108 : polymorphic base A or G

<220>  
 <221> misc\_binding  
 <222> 85..131  
 <223> 99-14021-108.probe

<220>  
 <221> primer\_bind  
 <222> 89..107  
 <223> 99-14021-108.mis

<220>

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<221> primer_bind
<222> 109..127
<223> 99-14021-108.mis complement

<220>
<221> primer_bind
<222> 1..18
<223> 99-14021.pu

<220>
<221> primer_bind
<222> 460..477
<223> 99-14021.rp complement

<400> 44
tttgttta atgcccctt ttctgcaaca cttgtgggtt agggaaaata attctaaagc      60
aagagcaaag acagagttgg gagatcacca gtgaggttca atttccrte acattcactc    120
tgctccacac ctcagataat catgtgctta actgcgaaac ttgcttgaca attacagaac    180
actttctcac ccattactac cttgatcctc acaattctgt ggggttagtag gagcagatgc    240
tcaaattgccc atacgaaat cagtgaactg aagcttagag acctccagca gggcagagg    300
gtcagcggaa actatcccag ggttcagcca acaagaaaatg atattggaaat cagagtattt    360
aaataagaat aataaaacca actaaaattt accgtgtttt ttatccac tcagtgccaa    420
caattcttaa cagtgtcagt gatggatccc tgtgccccag gggacagact tcttact    477

<210> 45
<211> 475
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 314
<223> 99-14359-314 : polymorphic base G or C

<220>
<221> misc_binding
<222> 291..337
<223> 99-14359-314.probe

<220>
<221> primer_bind
<222> 295..313
<223> 99-14359-314.mis

<220>
<221> primer_bind
<222> 315..333
<223> 99-14359-314.mis complement

<220>
<221> primer_bind
<222> 1..18
<223> 99-14359.pu
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<220>  
 <221> primer\_bind  
 <222> 457..475  
 <223> 99-14359.rp complement

<400> 45  
 ataagggaat ggtgtgaggt gggaccagag gaggctgcac tgagaaagt agaggggcaa 60  
 gacctcaggg gaagaaggga gggctgcacg gatgtctcag gcagagcagg cagcaccgga 120  
 aaagggtgggg gacactcctt ttggaccagc atataattt gttaaagcct ctcctgtttc 180  
 acctaataata taagcacatt tcaagataaa actactactt tattgtcatc aaatataaaa 240  
 gtaatttttt attcagggtt ttctaatact catctataaa ggcatttctt tcccacatgg 300  
 catgtgttac aggstgtta acttaaagca attgtaaaag aaaagcctga agaaaataagt 360  
 ctacaacgt ttacatcgta ttatattttt tgcataata tatgttaaaa tatacattag 420  
 ctatactaag ggaatcaaga gaagatcata attgctctt tgacttggga ttttag 475

<210> 46  
 <211> 473  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> allele  
 <222> 316  
 <223> 99-14364-415 : polymorphic base C or T

<220>  
 <221> misc\_binding  
 <222> 293..339  
 <223> 99-14364-415.probe

<220>  
 <221> primer\_bind  
 <222> 297..315  
 <223> 99-14364-415.mis

<220>  
 <221> primer\_bind  
 <222> 317..335  
 <223> 99-14364-415.mis complement

<220>  
 <221> primer\_bind  
 <222> 1..19  
 <223> 99-14364.pu

<220>  
 <221> primer\_bind  
 <222> 453..473  
 <223> 99-14364.rp complement

<400> 46  
 gtgtttaat tcaaccaggc tataagatac gaaatgatag aattgctcta gattctctat 60  
 tggtaataa aggagatatt tgcgtattt ccaataatac atgctgtacc tggataaacc 120  
 ccttggca agttgtgtat caataactca agaaaatagg ccacatagtt acaacaggac 180

ttacctaatt ccccatggc atttggctga ttcaagtca tgcttcaag cctaggttct 240  
tggctcaata ttattacata aactagaatt ttccattac tattaattt actttgtatt 300  
tttcttata aacttygtac ttattgcttg tcaaattca gcagaagtagc aactcctgag 360  
agaataatgc tggctcagag ttttgagatg ataacccttg tctatgaaac tgatgaagtt 420  
ggacttaaca acgaacactc cccacagaac tcctgatgct caaatgtggc taa 473

<210> 47  
<211> 502  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 99  
<223> 99-15056-99 : polymorphic base C or T

<220>  
<221> misc\_binding  
<222> 76..122  
<223> 99-15056-99.probe

<220>  
<221> primer\_bind  
<222> 80..98  
<223> 99-15056-99.mis

<220>  
<221> primer\_bind  
<222> 100..118  
<223> 99-15056-99.mis complement

<220>  
<221> primer\_bind  
<222> 1..18  
<223> 99-15056.pu

<220>  
<221> primer\_bind  
<222> 482..502  
<223> 99-15056.rp complement

<400> 47

caggaaactc acaagaagsc agatttcctt cgagcacctc ctgaataaag aggcaaaggc 60  
cttcttaact cttacaattt acaagtggct atgagtgcyt ttatagttcc cataataatt 120  
tctccacgta gacttcctaa ataataattt ctccctttt atattctctg tgcttatgtt 180  
tatataaaac aagttaccac ttaatcaaattt gccgatttgc attgctcaat atgtaacttt 240  
aattttctttt gcctcttatt ttggatctt aattctaaaa ctagatgatc ataaattcat 300  
ttaggaataa gcttgtgatc tagccttctt ttgaaccctt ttgtgctcct cacaatattt 360  
gttgcgtatga aacagtgagc aacatttgat ctatgattgt taatagaaaa acaccaatgt 420  
ctcaagttat tgtaaacata ggcataattt accttgggtt ctataaatat gtttgggttt 480  
ccccaaaata cgtctccctt tt 502

<210> 48  
<211> 494

<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 412  
<223> 99-15229-412 : polymorphic base A or G

<220>  
<221> misc\_binding  
<222> 389..435  
<223> 99-15229-412.probe

<220>  
<221> primer\_bind  
<222> 393..411  
<223> 99-15229-412.mis

<220>  
<221> primer\_bind  
<222> 413..431  
<223> 99-15229-412.mis complement

<220>  
<221> primer\_bind  
<222> 1..20  
<223> 99-15229.pu

<220>  
<221> primer\_bind  
<222> 476..494  
<223> 99-15229.rp complement

<400> 48

ctgtcattga	gaaatgctac	caataatact	tagagaattt	gataacaactc	agtctgaaaa	60
agctaagatt	agcagaacag	agctgtctcc	aaatatttga	agaactattt	tatttaaggg	120
attggaccca	ttttgtatg	tagttccaga	ggagcagatg	gtgaccactg	tccagggcaga	180
tgtgtctcaa	tgtaaggaca	acatctgtaa	tattaataat	tagaatgtat	cctgttaattt	240
tctctctacc	cttggaaacc	agtcgagatc	cagagtctt	cactgggagg	cttaaaggcct	300
agagcagcct	tggtgctaga	ggcggacagg	gataatgaac	taatcttcaa	ccaatttcata	360
catagcaatc	tcaatgcttt	cgttagctct	tataggtatt	taatacggcc	avaggaatga	420
agtagtctt	gctggtttag	aagccctgcc	taccacaacc	cctacaccac	cccatcccct	480
gcatagtctg	atgt					494

<210> 49  
<211> 485  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 291  
<223> 99-15232-291 : polymorphic base G or T

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<220>
<221> misc_binding
<222> 268..314
<223> 99-15232-291.probe

<220>
<221> primer_bind
<222> 272..290
<223> 99-15232-291.mis

<220>
<221> primer_bind
<222> 292..310
<223> 99-15232-291.mis complement

<220>
<221> primer_bind
<222> 1..18
<223> 99-15232.pu

<220>
<221> primer_bind
<222> 467..485
<223> 99-15232.rp complement

<400> 49
caatagaaca ggctgctcct ttataattat taatcatagt gtatattaat tcacatcatcac      60
atacgtggct agaaaaaaaat ttagaacaaa aagatatgtg atatgtaaag gcctacgata      120
attcagactt ctttgaggag agcttttatt ttattgttat tcttattttt tctcttgtca      180
atataaattt agagaataaa cagacaaaca ttacaaattt gtgattaattt gcattaaag      240
ccttagttaag actatttaag actattatgc ataatacagg aaaactacct ktattattta      300
tagtgggtgc cttctgaagg atctgaagga gaatcagttc tatgcctctc tcctcattcc      360
caggaggtgc ctggcattcc ttggcttgc gacgcacatcac cctaatactct acctctgcct      420
tcacatggtg tcccctgtgt gtgtgttttt gccccatgtg tctcctctt ttatatggat      480
gccag                                         485

<210> 50
<211> 464
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 347
<223> 99-15241-347 : polymorphic base A or G

<220>
<221> misc_binding
<222> 324..370
<223> 99-15241-347.probe

<220>
<221> primer_bind
<222> 328..346
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<223> 99-15241-347.mis

<220>  
<221> primer\_bind  
<222> 348..366  
<223> 99-15241-347.mis complement

<220>  
<221> primer\_bind  
<222> 1..19  
<223> 99-15241.pu

<220>  
<221> primer\_bind  
<222> 444..464  
<223> 99-15241.rp complement

<400> 50

gttatgggtt	gaaaatctct	gagttcttgt	acataaaaaa	attttactgt	tgtcacagtt	60
gaatcttagt	ttagatgggt	ataggatttt	tattcaaaaat	gcttttactc	cataagttta	120
aaaatattgt	tacatttcc	tcaagtatct	gatgtttattg	atgagaagtt	taattctaat	180
ttgactcttg	ttcccttgtt	ggtactattt	gttttccagt	ttgggaagct	tacatttctt	240
aaaattcaca	acatataatt	tacataactac	acaattcttt	ttaaagtata	caattcaatg	300
cattttagtat	gttttagtac	atataactta	aattatgtat	atacaarate	tctttataat	360
attttagaa	tatgttagcat	attcacaaga	ttgttcaacc	atcaccactc	tctatttcca	420
aatcttttc	ctccaaaaag	aaaccctgaa	cactatgatg	aata		464

<210> 51

<211> 550

<212> DNA

<213> Homo sapiens

<220>

<221> allele

<222> 196

<223> 99-15244-196 : polymorphic base A or G

<220>

<221> misc\_binding

<222> 173..219

<223> 99-15244-196.probe

<220>

<221> primer\_bind

<222> 177..195

<223> 99-15244-196.mis

<220>

<221> primer\_bind

<222> 197..215

<223> 99-15244-196.mis complement

<220>

<221> primer\_bind

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<222> 1..20
<223> 99-15244.pu

<220>
<221> primer_bind
<222> 532..550
<223> 99-15244.rp complement

<400> 51
ctgcttctgg ttatgtttc ctaattgcca aaatggtaaa aatgagaata atcattgaaa      60
gagaaagcat aaagtagcaa aaatccttc cagattaaaa aacgaagcaa agcatgttc      120
ccaaagtaata atactctcat cttcctccct aatccttac cccactacca gaagaagagt      180
aaaatgtccg gatatrttt aaggtaaaga tttctcctt taataaaaatt agtcacctt      240
tacacatcag tagatcttga gaatgaaaag cttttcttagt acattcattt caacctataa      300
atgtttgact tttctctgtc attcatttac gacctgtgat cttttcattc ctttcagtt      360
agaatatttt tcaaattttt attgatattt tctatttaac ccataggta tttgaaata      420
cattgtttaa tttctaatat atttgctttt ttttctactt atttctttt ttcttaattc      480
cacactggtc caaatatattt ctgcatatga tttaatattt taagttctgt agagactaac      540
cttgcgcctc                                         550

<210> 52
<211> 452
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 404
<223> 99-15252-404 : polymorphic base C or T

<220>
<221> misc_binding
<222> 381..427
<223> 99-15252-404.probe

<220>
<221> primer_bind
<222> 385..403
<223> 99-15252-404.mis

<220>
<221> primer_bind
<222> 405..423
<223> 99-15252-404.mis complement

<220>
<221> primer_bind
<222> 1..18
<223> 99-15252.pu

<220>
<221> primer_bind
<222> 433..452
<223> 99-15252.rp complement
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<400> 52  
 atgggggcat atagcaaccc tttagaaaca aaactacaaa aggttaagctt gtcttcttgc 60  
 atttccttcc tcttactaca tttAACATGG gaggtttct atgtctcaca ttcaaatatt 120  
 ctcaactcggg ctgcctaatt ttccctgat ttccatcac tctttatgaa ggcttgctac 180  
 tttagaatac acattttctt aacagaagat aataatcaga agatgtctcc caaatataag 240  
 tccaaatctt tcctatcatg ctgtgttctt tggctctttt gactttattt gaagtccagcc 300  
 ttgaagggggaa tagagatagg ctgtatgaag tccacgctga gaagtttgc cctgccctac 360  
 ttgtccctgta atatttcatg gatagcccgag tggtgattaa accygtgtgt acaggaataa 420  
 ccatgagaat ttgttaaaaa tataggctct gg 452

<210> 53  
 <211> 477  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> allele  
 <222> 382  
 <223> 99-15253-382 : polymorphic base C or T

<220>  
 <221> misc\_binding  
 <222> 359..405  
 <223> 99-15253-382.probe

<220>  
 <221> primer\_bind  
 <222> 363..381  
 <223> 99-15253-382.mis

<220>  
 <221> primer\_bind  
 <222> 383..401  
 <223> 99-15253-382.mis complement

<220>  
 <221> primer\_bind  
 <222> 1..19  
 <223> 99-15253.pu

<220>  
 <221> primer\_bind  
 <222> 459..477  
 <223> 99-15253.rp complement

<400> 53  
 aaaatcaatt ccccaacact cattttgtac gctaattttg taagatcctg aaaagttca 60  
 ctatTTTATG gtttcatgtg ttacagatga aaaaaaaact agaattcaaa ttttctgagt 120  
 tttttttac aatattttat gattacaaag tttagaagact aagaataaaa tggcctaatt 180  
 tccataatgt gagtggtaaa tgcaGAGCAC tggcctaaag aaaatatttc aaaaaattag 240  
 tcataCTTTc cttaattttt ttccaaaccta tgatctgtt aatgagcatt ttgcataatat 300  
 aaataaataa attactttgt aaataatctt gactgtttc tggaccac agtaacccac 360  
 tgcacagcac agcctgtaat tyctatgaac ctagggaaat gtatTTTtgg 420

attacacagg tcctcattgt gtaactaaac attgcataga atatgccagt gatgatg 477  
 <210> 54  
 <211> 456  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> allele  
 <222> 392  
 <223> 99-15256-392 : polymorphic base C or T

<220>  
 <221> misc\_binding  
 <222> 369..415  
 <223> 99-15256-392.probe

<220>  
 <221> primer\_bind  
 <222> 373..391  
 <223> 99-15256-392.mis

<220>  
 <221> primer\_bind  
 <222> 393..411  
 <223> 99-15256-392.mis complement

<220>  
 <221> primer\_bind  
 <222> 1..18  
 <223> 99-15256.pu

<220>  
 <221> primer\_bind  
 <222> 439..456  
 <223> 99-15256.rp complement

<400> 54  
 cctctctatg atgcttccta ttaagcaatt gggaaatgt aataaacaag gtttgtgag 60  
 catcttcctt agtgagatgt ttttggaga attggataat tgagtgaata atagtgagaa 120  
 actcctgtgt ctgatgttgc tccatgttgg aatgccttta tgttctcaga gaatgagtca 180  
 ctgagagcca attgtgatga tacacaatgg ttttacccag gttggatatg gtcctctgta 240  
 ctggtaccct ttaagtcaagt ggcactaatac agtcagtcat tgtcatgctt tgtgttggc 300  
 catcatatgg tatgccctct tagagaacat cctgatttagt ccttagacat cttttcaatt 360  
 tgaacactgg ggctcctcat tcgggtaaaa aytatggaca gtcagtgaaa ctgttgcaat 420  
 ggcccctcat agcagattgg atctcaatgc actttg 456

<210> 55  
 <211> 501  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> allele

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<222> 200
<223> 99-15261-202 : polymorphic base A or G

<220>
<221> misc_binding
<222> 177..223
<223> 99-15261-202.probe

<220>
<221> primer_bind
<222> 181..199
<223> 99-15261-202.mis

<220>
<221> primer_bind
<222> 201..219
<223> 99-15261-202.mis complement

<220>
<221> primer_bind
<222> 1..19
<223> 99-15261.pu

<220>
<221> primer_bind
<222> 481..501
<223> 99-15261.rp complement

<400> 55
cttctaattcc tttgtttcca cttattttat ttcatccctc attttatccc ttttttctaa      60
attccatttt attatactta aggtgctttt aatatggta tcatactcct gatagtgtta      120
tttctttctt agtcttctta tataagcgct atacgttacatccatctc ctttggttat      180
ctttccattt cttcaccgar cctctttgct ctctttttt atagctgggt cactcaaaat      240
gtcttactttt gccatttttg aaatttattt tcattttttt atgtactgaa taaaatttaa      300
aaatacttta tcatgggtggg aggtacccgt gatgtccaaa taagtgtta tattaattgt      360
tggggttttt ttgtttgtgt gtttttgaa aggttaagaa aatctcattc agaaagtaag      420
ttgtttaaaa attctggacc aaatttacca cacatcaagc agataacttac caagttgttt      480
ggtagacatt agcagtattt a                                         501

<210> 56
<211> 541
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 432
<223> 99-15280-432 : polymorphic base C or T

<220>
<221> misc_binding
<222> 409..455
<223> 99-15280-432.probe
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<220>
<221> primer_bind
<222> 413..431
<223> 99-15280-432.mis

<220>
<221> primer_bind
<222> 433..451
<223> 99-15280-432.mis complement

<220>
<221> primer_bind
<222> 1..18
<223> 99-15280.pu

<220>
<221> primer_bind
<222> 521..541
<223> 99-15280.rp complement

<400> 56
atgtccatcc atcttgccca gagagagttt ctacaacact tcctctgcaa gccctttccc      60
tacttgcctc acctattgct ttccctgtt acgttgttatt cccctcactg tttcttccaa    120
catcttccca cctcagagca tggacacttg ctgctttc tgtgtcatga tgctgctcac    180
ttgtccctt cttaatgtct cttcccttag ccaatcttct ccaccccccac aacttacgca    240
cacttacatg tcataatttc cttcatagcc tttaacacca tttgaaatga tatatatttg    300
attgctttta aaatttctct gtccccccac taaatataaa cttcaggatg gcaagaatgt    360
agtccattat cttatttctc cagcctccat acttttaaga aaataaattt tggttgtata    420
agccatccag tyagtggtag ttggttatag cacccttagc aaaagaatac aaaaaaaaggg    480
agaatgttg caatcatctg tttgaggcta ggaattccca gagaggaaa caaggagtaa    540
t                                         541

<210> 57
<211> 514
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 428
<223> 99-15353-428 : polymorphic base C or T

<220>
<221> misc_binding
<222> 405..451
<223> 99-15353-428.probe

<220>
<221> primer_bind
<222> 409..427
<223> 99-15353-428.mis

<220>
<221> primer_bind
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<222> 429..447  
<223> 99-15353-428.mis complement

<220>  
<221> primer\_bind  
<222> 1..18  
<223> 99-15353.pu

<220>  
<221> primer\_bind  
<222> 495..514  
<223> 99-15353.rp complement

<400> 57  
tgggaatgga ggttagtagac gatgaggtct ccaccctctg actttgcaga gatgggcaag 60  
gccaagtgtt ggaaggcctt aaacacacac cggagttttc tgtgagaacc agtgatttc 120  
agaggatggc aatgacacca cttgccttgc gcctcaggag gataactgtat ggcgtgtgt 180  
gggatgcact ggagagcaag agctggcttgc cagggagacc agctggatga ttttcttca 240  
tttattttat tcattcaaca cacattcatc tgggttcac tctgtgccca acactggca 300  
tttccaaata gtccagatgg cagtaagcat ggttgtggca gtaggaatgg gaaggctggg 360  
aggggtatga gaggcattac aaacgggaag tgggagtggc accccagaaa agtctagttt 420  
aagggtcyaq tggatgtgtc catgtgtgcg cgggggtgtc tagagggtgg cgggcagctg 480  
gaaattgagg tcaagtgcatt aaagaacaac tcgt 514

<210> 58  
<211> 489  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 150  
<223> 99-15355-150 : polymorphic base C or T

<220>  
<221> misc\_binding  
<222> 127..173  
<223> 99-15355-150.probe

<220>  
<221> primer\_bind  
<222> 131..149  
<223> 99-15355-150.mis

<220>  
<221> primer\_bind  
<222> 151..169  
<223> 99-15355-150.mis complement

<220>  
<221> primer\_bind  
<222> 1..18  
<223> 99-15355.pu

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<220>
<221> primer_bind
<222> 471..489
<223> 99-15355.rp complement

<400> 58
taacttctcc gtctctcctt cttagcccat atgtcaataa tgactgaaag tattcattc
catcttaaa ctgcctattc cagccacctc ccacctccat ctcttcctt ctaagtttc
ttcatcttct actttggca aaagggaaaty gatgtgtcaag acaggcctag ttttgaattc
tggatctgct agcacttctc tgtgtgtcct tggttatatg atatagtctt aaaccttaat
gttcttgccct gtaaaatggg gataataaaa acctcttaac agtgggtgtt tcatgcagct
ttcattacaa acttcctcat tcaaaatctt caatgatttc cattttcac aaaatgaaat
tcaaaatttc ttagattat tgagacaagt cccctactct tcacctaataat ttatctttt
tttattctct catcattatc aacaactact aggcttgtt gccttgactc cagaggcaaa
aatcttatac

<210> 59
<211> 468
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 227
<223> 99-15685-227 : polymorphic base A or G

<220>
<221> misc_binding
<222> 204..250
<223> 99-15685-227.probe

<220>
<221> primer_bind
<222> 208..226
<223> 99-15685-227.mis

<220>
<221> primer_bind
<222> 228..246
<223> 99-15685-227.mis complement

<220>
<221> primer_bind
<222> 1..18
<223> 99-15685.pu

<220>
<221> primer_bind
<222> 449..468
<223> 99-15685.rp complement

<400> 59
aaacaaaggc acgcagagga taaggcatga gtccaaaccag cagcatctcc ctccccgaatg
agtacagaaa tgatcaatac tcgaagagaa aaagatgttt tcagtgtgtt ttacctqaaa
60
120
180
240
300
360
420
480
489

```

acttccttaa gcagcttcac tttattgtca gatatcgct ttgtgtttgt atcatctaag	180
aaagctcgcg catatgctag tgggccagca ttgacctaga caaagarcaa agatttcag	240
ttccactagg aagaaaatca ccatgaccat ctgctcagtt tcagtttgcg ggcactaaaa	300
agcccgttcg cgtgagctac tcacaatccc tgcctccag gaacttaagc ccaaaaagaa	360
accacaaaagc tcactctgtt gcacaccact tgatccatg atctcagcca tcttcaggc	420
acttgtatg atggttact ttatgttaaga agaaaccaat gcttgaa	468

<210> 60  
<211> 500  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 428  
<223> 99-15695-428 : polymorphic base C or T

<220>  
<221> misc\_binding  
<222> 405..451  
<223> 99-15695-428.probe

<220>  
<221> primer\_bind  
<222> 409..427  
<223> 99-15695-428.mis

<220>  
<221> primer\_bind  
<222> 429..447  
<223> 99-15695-428.mis complement

<220>  
<221> primer\_bind  
<222> 1..18  
<223> 99-15695.pu

<220>  
<221> primer\_bind  
<222> 481..500  
<223> 99-15695.rp complement

<400> 60	
atcagcctt gtgaggagga ggccctgcct gctccctcc tgagctgatg ggtcagtcac	60
accaggacaa aggtctgccc ggggctgtgt gggttccctcc ttcctgagct gcacaccagc	120
atctgctgaa caccttctgg agctcagctc aatgtctcgt ccagagacac tggttccctt	180
ggcttctcag caactctcgg atctgggcct gggctcaacc tcagcggtgg tcttgcccat	240
ttctagggcc tcacaattca gcctcatgtc ttccactgtg gctctttgc aaggctcaga	300
aagctctagg gtcagttcca gatgactccc accagcatgc cagtaggagc caccacccccc	360
tctcagccag cgccaccata ttccaggcaa attccaactg acacagactt caaggaacga	420
ttgttagcygt tggctttgtc ttccaggcaa attccaactg acacagactt caaggaacga	480
cacgcatttc attccccacc	500

<210> 61

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<211> 472
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 310
<223> 99-15703-310 : polymorphic base C or T

<220>
<221> misc_binding
<222> 287..333
<223> 99-15703-310.probe

<220>
<221> primer_bind
<222> 291..309
<223> 99-15703-310.mis

<220>
<221> primer_bind
<222> 311..329
<223> 99-15703-310.mis complement

<220>
<221> primer_bind
<222> 1..18
<223> 99-15703.pu

<220>
<221> primer_bind
<222> 452..472
<223> 99-15703.rp complement

<400> 61
aggcgtttgg gttataaggcg ctgaatttct tctaaagcta acctgactct gatgctagaa 60
gagcccattt aaggaaagaa aaacactttt cattgctcga tcaaagttca tccattttgg 120
aaaagacatc aaaccaagtgt tggacacca ggcaccata tccttcctct ttcccaccac 180
cccacccctg tcctcaggc agtgacagtgt aagcctggtg caggtcccgcc tgctgcttt 240
tgaagtggca catgctttat tttcttaaaa agaagtgaga gacaacctat gctacaggag 300
gctctgtgay gttttctga agtacaaccc cttgctctgc cagggcagct gtaaagggtc 360
taaagagccc tgagaaagga gagaggattt gggaaagccga ggaggcagag ggagaccaca 420
tagcacatgg agttctgaaa gggcccaagt ggagacagaa aacgagtcat gt 472

<210> 62
<211> 470
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 400
<223> 99-15870-400 : polymorphic base A or G
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Q Q Q Q Q Q Q Q Q Q

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<220>
<221> misc_binding
<222> 377..423
<223> 99-15870-400.probe

<220>
<221> primer_bind
<222> 381..399
<223> 99-15870-400.mis

<220>
<221> primer_bind
<222> 401..419
<223> 99-15870-400.mis complement

<220>
<221> primer_bind
<222> 1..21
<223> 99-15870.pu

<220>
<221> primer_bind
<222> 452..470
<223> 99-15870.rp complement

<400> 62
gctcaaatgt atcaaacaca gtttctgtgg tcaagttcct ctcctttct aaatttgctt      60
agaggatctc ataaaacgta actcctctga caagggAACc attttagcac caacactgca      120
aaagcttctg tgttcctaag ggaaagatcc tttcctgaat taaatttaac ctcttttagta      180
ctccccattta gccacctgat aaatccactt gagctatctt ttgggaagag agaggtatct      240
ggaacaata acacttcctt tttgaacagt ttaataaaagc tttgtgagat ttcaagatga      300
aagataatgt gtaatgctga tagtgcctc caaggctctg cattcatgga tccaaattacg      360
tttttgtca tggtaaaagc cacagtggat atattaaatr agagtgttgt ttaagaatga      420
aggcccagga gtctggagat ctggttctta aggctgactt cacttctgct      470

<210> 63
<211> 469
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 287
<223> 99-16321-287 : polymorphic base A or C

<220>
<221> misc_binding
<222> 264..310
<223> 99-16321-287.probe

<220>
<221> primer_bind
<222> 268..286
<223> 99-16321-287.mis
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<220>
<221> primer_bind
<222> 288..306
<223> 99-16321-287.mis complement

<220>
<221> primer_bind
<222> 1..20
<223> 99-16321.pu

<220>
<221> primer_bind
<222> 451..469
<223> 99-16321.rp complement

<400> 63
ctttaggaat atcccttctg atttgaacaa catttgcta tccaagttct gtctactttt 60
ttaacaagg tttgtccgt gtgtctcctt ttgcttgg tcaagtaagg gagtaacagg 120
gataaactcc cactccttgg taaatcttc tatcattttt gaaatctca tccattgtag 180
taaatgctct taaatcttca tcttcaggcc gtgacttcca tctagcctcc attcacgttt 240
ccgggtttat gtctgcaatg agcattccgt ggctctacat agatgcmcca ccataacctag 300
aacccatgtta tcccaaactc aattctttct ttcccaggac attacttcct gcacttcctt 360
agtctatcaa tggcactgtt attcttcttga ccatctagac ttgaaattttt ggggttttgg 420
ctcctcctgc tcccttgctt tataatgtaa cagacatcaa gtctcaatc 469

<210> 64
<211> 544
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 194
<223> 99-16333-194 : polymorphic base A or G

<220>
<221> misc_binding
<222> 171..217
<223> 99-16333-194.probe

<220>
<221> primer_bind
<222> 175..193
<223> 99-16333-194.mis

<220>
<221> primer_bind
<222> 195..213
<223> 99-16333-194.mis complement

<220>
<221> primer_bind
<222> 1..19

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<223> 99-16333.pu

<220>  
<221> primer\_bind  
<222> 524..544  
<223> 99-16333.rp complement

<400> 64  
atttaccccg tctgccttgc aatttcagga tcagtataca tcaaatacag tgaacaaccc 60  
agggaaattctt gccgttaccc tttagaaaca gaataaaatataa taacagatctt ttacttcttt 120  
ccaccaaggg ggactatatgtttaatacagt aatttacact ggaaaaaaata taaatgaaag 180  
ggtttagaaac ctcrttaactt taaaataaacataattcctccttagaacatt cctttcaactt 240  
gtgattctca aagcacttttgcatttcccgatcttggcag ggcttggaaatttggatcaag 300  
tatcacttaaaatggtaggtga aataaaatgtt aagctgattttcaggatgtac aggaatggag 360  
tcatcaggcg actttaaatgtt aagaatctgttggagcagc tgccaataaa tcaaggccca 420  
aaggagaaaat ttctttggaa accttggaaatattgtataca tttagataat tattgttggtt 480  
gtcaatgtta acgaaaaaaatcaataaaatca gggagatggc actgtatgtt gaggagaaaat 540  
agac 544

<210> 65  
<211> 475  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 149  
<223> 99-5873-159 : polymorphic base C or T

<220>  
<221> misc\_binding  
<222> 126..172  
<223> 99-5873-159.probe

<220>  
<221> primer\_bind  
<222> 130..148  
<223> 99-5873-159.mis

<220>  
<221> primer\_bind  
<222> 150..168  
<223> 99-5873-159.mis complement

<220>  
<221> primer\_bind  
<222> 1..18  
<223> 99-5873.pu

<220>  
<221> primer\_bind  
<222> 457..475  
<223> 99-5873.rp complement

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<220>
<221> misc_feature
<222> 409
<223> n=a, g, c or t

<400> 65
gcgtaacaat aagcagggtt agtcgccaca aaacttgaga taagaggaaa actaaaaaaag      60
tctaatgaaa tcagtagtct taaaaagatg acatgatagg aagagaagtg taaaaaaaaga      120
aaaaaaaaatag gtatgaaaga gagtaacaya taccggaaaa gggataaaaat acatccttg      180
aaagaacaaa gagttattca aattgaattc ttaatgaatt acttaaacag cagatttagat      240
attgttaaaa agaggaatag ggaattaaat gatatatgtg atgatattac ctatgttaac      300
catcaaagat gtattgcaaa tgataaagaa aaaaatgctg ccatggcaat attaatatca      360
taaaaatata cttaagaag taaataaattg caactaggaa tagagaaans dvhatgaata      420
ataatattt amaaavvgta taacaagtat acataagatg taatatccta aaccg      475

<210> 66
<211> 511
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 49
<223> 99-5912-49 : polymorphic base A or G

<220>
<221> misc_binding
<222> 26..72
<223> 99-5912-49.probe

<220>
<221> primer_bind
<222> 30..48
<223> 99-5912-49.mis

<220>
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<222> 50..68
<223> 99-5912-49.mis complement

<220>
<221> primer_bind
<222> 11..31
<223> 99-5912.pu

<220>
<221> primer_bind
<222> 494..511
<223> 99-5912.rp complement

<400> 66
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gaccttatat gaacatattt agataataat gatagtgttc agtgcataat tcagatcaat      120
agtttaaacc caaaatattt ataccttcag attagatgtt tgcaaatttca ttgatttcgt      180
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tgtctttat ctgttgttta catttggaga aatattttag aatatttca aatggatt	240
tatataaaatt taaacacata atggtttat gtaaaaatat tgctaaatta catttcccc	300
ttaattctta tttcttgaa acgtgcctta gtcgctgaaa tattcataca ttaacacataat	360
gaaagaagtg aaccttacta ggcttgact atcaggtttg ctgttggtt ttgactattg	420
tgaaactata gcctgatttc taaatcagga agaaaacgtgt attgttgtta atatggacac	480
atgacatatt tgtctgcctg acttttgc c	511

<210> 67  
<211> 485  
<212> DNA  
<213> Homo sapiens

<220>  
<221> allele  
<222> 210  
<223> 99-6012-220 : polymorphic base G or T

<220>  
<221> misc\_binding  
<222> 187..233  
<223> 99-6012-220.probe

<220>  
<221> primer\_bind  
<222> 191..209  
<223> 99-6012-220.mis

<220>  
<221> primer\_bind  
<222> 211..229  
<223> 99-6012-220.mis complement

<220>  
<221> primer\_bind  
<222> 1..19  
<223> 99-6012.pu

<220>  
<221> primer\_bind  
<222> 467..485  
<223> 99-6012.rp complement

<400> 67	
gtcttgactt gtttccctga gggtccaggt tgatttgcattt gctttggagg aaatatacac	60
gtcttcag ttttaataat tgactgacag ccctgtggtt tctcaggacc cagttagctg	120
ctgctccctgat gtcagttctgc aaaggatgt ggttcccttg tggtctcattt aaggtggat	180
atttcctgat ttttagagatt tttttatccat aattttttttttt acattttttttt acattttttttt	240
gcataaaaaaa atgtacagca ctctactgct tgtttacaa atggatagtg atatatctgc	300
caacaaagac cacatggagt atttcatttgc ctatcagaga agtttccctcg aaaggccacca	360
tacttagtgtt ttttttttttttccat tgagtgaagg aaaattttttt atttgaagttt tttggctgtc	420
tttagttgtt tctaaagttttt tgctgattttt atatgccat aatatttata tatacacccca	480
ggata	485

<210> 68

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<211> 529
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 89
<223> 99-6080-99 : polymorphic base C or T

<220>
<221> misc_binding
<222> 66..112
<223> 99-6080-99.probe

<220>
<221> primer_bind
<222> 70..88
<223> 99-6080-99.mis

<220>
<221> primer_bind
<222> 90..108
<223> 99-6080-99.mis complement

<220>
<221> primer_bind
<222> 1..18
<223> 99-6080.pu

<220>
<221> primer_bind
<222> 509..529
<223> 99-6080.rp complement

<400> 68
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agccatctct agcaatttaa tacaatttayg aaatggaaaa gttggcaaat gcaaaacaat 120
agctcggtt caaggtatgt ctttatttagg ggaagtttat cggaaacagat gtttatgcta 180
tttcctataaa actagattct aaaatatttt attctataaa gatgtattga ctttatatga 240
aaaaattatt gaaaaatcta caagatggtg aaactcttta gaactatatt tctattacaa 300
gtttattttt aatttcaaaa atgtactgca taaatgcagc aaaaccttta ttgtcacata 360
ttaaaacatg tacattatttg tggcaattttaaaaatccat taccttaaac caaaaagtga 420
gttggccaga tagtaaataa tttaggctct aaggctgaaa agcgcttgta ttaattactc 480
aactccacca ctatggcc aaagcagtca cagacaatac gcattcaca 529

<210> 69
<211> 489
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> 156
<223> 99-7308-157 : polymorphic base C or T
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<220>  
<221> misc\_binding  
<222> 133..179  
<223> 99-7308-157.probe

<220>  
<221> primer\_bind  
<222> 137..155  
<223> 99-7308-157.mis

<220>  
<221> primer\_bind  
<222> 157..175  
<223> 99-7308-157.mis complement

<220>  
<221> primer\_bind  
<222> 1..18  
<223> 99-7308.pu

<220>  
<221> primer\_bind  
<222> 469..489  
<223> 99-7308.rp complement

<400> 69

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ttgcattatt	cctgaggggc	aatgcattcc	agttacatag	aaccagttc	tacgtttcag	120
ggtatatgtt	ttcatggtga	caaattttat	cacatyttaa	gtaattttaa	gtaattcaca	180
ttttaagtaa	tttcctgaa	tgtgcctcat	tggcttctgt	gcctcttcag	aaaagatgaa	240
ctaaacactg	gcatatgtgt	tcaagttca	acattccgtt	gttttcatgt	tggataattt	300
ctgtcccaata	tttttgttga	aagttagaca	ataaagtgtt	aatattctgg	cgtcggcaca	360
ttttctttcc	tgataaataa	caattcacat	atctttttaa	aatatcagag	aatatagtaa	420
ccaatttcca	attcttttt	caccatgtat	ctattggagt	ttaaaatga	ctaatactaa	480
ggcaactat						489

<210> 70  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> sequencing oligonucleotide PrimerPU

<400> 70

tgtaaaacga	cggccagt	18
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<210> 71  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>

<223> sequencing oligonucleotide PrimerRP

<400> 71

caggaaacag ctatgacc

18